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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/556,019	06/20/2006	Guenther Pfeifer	GK-EIS-1099/500593.20092	4507

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EXAMINER
MEI, XU

ART UNIT	PAPER NUMBER
2615	

MAIL DATE	DELIVERY MODE
09/18/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/556,019	PFEIFER ET AL.	
	Examiner	Art Unit	
	Xu Mei	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/7/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is responsive to the applicant's application filed 11/07/2005.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevenson (US-5,255,326) in view of Byers (US-6,219,645).

Regarding claim 8, Stevenson (see figure 1 and the corresponding part of the description) discloses a system for the location-sensitive reproduction of audio signals, using a plurality of electroacoustic transducers ("stereophonic speaker units", see column 3, lines 3 - 5), comprising an infrared location-sensitive detection device for detecting the position of the person listening (10, see column 3, lines 28 - 35) and a central processing unit ("signal processor" 12) for calculating and controlling the audio signal output from the individual transducers for optimum reproduction of the audio signals at the position of the person listening, detected by the detection device (see column 3, lines 18 - 47 and column 2, lines 23 - 28). Stevenson discloses the loudspeakers are combined with the sensors (18, 22) to produce a single unit (see figure 1, reference signs 14 and 16 and column 3, lines 3 - 12). The loudspeakers may

also be used as microphones that are as receivers for the audio signals (see column 3, lines 6 - 13, a plurality of microphones for recording second audio signals as claimed). In that configuration, the microprocessor processes the acoustic signals received by the transducers ("voice commands", see column 3, lines 48 - 64) and the signals from the location-sensitive detection devices (see column 3, line 65 - column 4, line 4). The system according to Stevenson can therefore be controlled by means of voice recognition. In addition, the playback loudspeakers can be used as microphones for the acoustic triangulation, in addition to or instead of the infrared location sensitive detection device for detecting the position of the person listening. Stevenson shows in Figure 1 that the electroacoustic transducer, the microphone, and the location sensitive detection device are arranged in a single housing. What's not taught by Stevenson is the non-specific "correlation" of the second audio signals received/recorded by the microphones with the position information signals from the location-sensitive detection devices as per claim 8.

It is therefore to solves the objective problem during voice recognition of being able to select those voice recognition signals which are most suitable for recognition of the acoustic signals (because the distance between the listener and the particular microphone or loudspeaker is the shortest). And Byers discloses a system for enhanced automatic speech recognition using plurality of microphone the field of voice recognition (see column 2, lines 19 - 22). Byers also discloses voice-controlled audio reproduction devices ("entertainment systems", see column 1, line 27; "television device", see column 4, line 14) and in which the position of the user is located using

voice recognition signals (see figure 3, step 320 and column 7, lines 39 - 48) for the purpose of such devices can be controlled without errors when a plurality of microphones are used, the danger existing of a voice command that is received by a plurality of microphones being incorrectly responded to by a plurality of devices (see column 2, lines 23 - 36). With regarding to the system of Stevenson that is owing to the similar problems of interest, a person skilled in the art would consult Byers and would find therein approaches for solving the problem of error-free voice recognition for the system of Stevenson. Byers proposes correlating the signals of all the microphones so as to determine the position of the user by means of triangulation (column 13, line 6 - column 14, line 2 and column 5, lines 20 - 28) and finding the microphone that is nearest to the user (see column 7, lines 39 - 48 and column 13, lines 31 - 35). Proceeding therefrom, and incorporating other information, the combinations of Stevenson and Byers would have detected the signal with the best voice quality is then used for voice recognition (step 350 in figure 3; see also column 8, lines 21 - 28 and column 5, lines 21 - 35), hereby ensuring error-free voice recognition.

Regarding claim 9, Stevenson discloses the control of the loudspeakers is adjusted in line with the momentary position of the listener in real time (see column 3, lines 40 - 47).

For what's called for in claim 10, see column 2, lines 19-23 and column 5, lines 25-28 of Byers.

Regarding claim 11, Stevenson discloses the loudspeaker or electroacoustic transducers, the microphones, and the location-sensitive detection devices are spatially distributed (see figure 1).

Regarding claim 12, Byers discloses the system for enhanced automatic speech recognition also including an addition device for signal adding recorded by other microphone (see column 5, lines 36-45).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Plunkett, Kokkosoulis et al, Shiraishi, and Cohen et al discloses various sound location sensitive systems for maintaining balanced audio signal outputs by loudspeakers.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xu Mei whose telephone number is 571-272-7523. The examiner can normally be reached on maxi flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Xu Mei/
Primary Examiner, Art Unit 2615
09/08/2008